

Headquarters, Western division St. Louis arsenal, Missouri, October 14th, 1838. Sir

HEAD QUARTERS, WESTERN DIVISION, ST. LOUIS ARSENAL, MISSOURI, *October 14 th*, 1838.

Sir: —Accompanying this, I do myself the honor to send you a Diagram of my system of Rail Roads, designed to lead from the contral and western States of the Union, to the six grand divisions of the national frontier, which I respectfully desire you to accept as a slender token of my esteem: and of my solicitude for the safety and prosperity of our beloved country, of which the State over which you preside, forms a distinguished member.

Referring you to my views submitted to the department of War in December, 1826, and February, 1835, of which I will take an early occasion to obtain and forward to you copies, I have now to remark, that I am mainly indebted to the occurrences of the war of 1814 for the suggestions to which I solicit your attention; to the experience of the war, I may add the obligations we are all under to the great and glorious discovery of Oliver Evans, for the application of steam power to vehicles of land transportation.

In the progress of the war, I witnessed the deeply afflictive struggle of our country, full of resources, and numbering more than a million and a half of men of unsurpassed gallantry, contending against and often foiled by forces inferior in numbers, and certainly not superior in prowess, to those opposed to our fathers of the revolution. Painful as these reminiscences must ever be, they are not to be forgotten or disregarded by the statesman or the soldier; nor will any patriotic citizen of the republic fail to ponder upon the subject until the cause of our difficulties in the prosecution of that war are developed and exposed. That most of the evils which tended to retard he successful issue of that war still exist, no man of military mind can doubt:—evils which consisted principally in the SPIRIT OF PARTY. The spirit of party had contributed to encourage the enemy in the hope that we were sufficiently divided to be easily conquered.—This monster had contributed to plunge us in a sanguinary war with one of the most powerful nations of Europe, without the essential preparations of military roads, with a National Bank.

In the course of that war, I witnessed many apparently favorable opportunities of achieving victory over the invading foe, which in most cases vanished for want of good roads or canals for the prompt transportation of munitions of war and reinforcements, from the central and interior States and districts to the frontier. Our troops and supplies were not only much retarded in their movements, but often greatly enfeebled and injured by the obstacles they encountered by bad roads and impracticable water courses; upon which they seldom moved more than at the rate of 12 to 15 miles in twenty-four hours; and at an expense of from \$6 to \$40 for every man—and the same for every barrel of pork, flour or powder, for every one hundred miles; an expense sufficient in the course of

a war of seven years duration, to bankrupt, whilst it must ever render doubtful and difficult every operation in the defence of, the country.

Believing that the defence of our country should never be left as a matter of doubt by a prudent people, I determined to devote my best efforts to the discovery of some improved means of transportation, tending to obviate the countless expense of time and of money which in the late war attended all our operations. In my first project, which I submitted to the department of War in December, 1826, I proposed a system of *Canals and Turnpike Roads*, from the central States to the interior frontier.

That plan might have been carried into effect by the army, had it been augmented from time to time, by calling out volunteers or militia in numbers proportioned to the gradual increase of the population of the United States, taking the army as it stood after the reduction of 1815 as the basis. By this process of augmentation, we might have had at this time an army, consisting of the yeomanry of the country, embracing sober, industrious mechanics, sufficient to have enabled us to complete the works of defence necessary upon the frontier, with a first rate Turnpike Road leading from the central states, to each frontier Post, at an expense of forty millions of dollars.—That project, however, thanks to the spirit of party, was disregarded. Our excellent currency, based upon the Bank of the United States, was deranged by the spirit of party; and the great evil of the recruiting service, by which the ranks of the army is for the most part filled with drunkards and idlers, has been preserved.

Nothing disheartened, however much mortified, I quietly continued the investigation of the subject; and in the year 1830, I began to entertain hopes that a system of *Rail Roads* from the central States to the frontier, was practicable, and that it would be more acceptable to the people of the United States, and far more important as a means of national defence than canals and turnpike roads, and not likely to cost much more money. I immediately directed my attention to the subject, but could find few men who were willing to hazard their reputation upon a project of so awful a character, threatening an expenditure of fifty millions of dollars of the “people’s money;”—and what was not much less frightful to many of my friends, they had reason to apprehend a revival of the controversy in which many of them had fought, and as they believed conquered, in opposition to the doctrine that the federal Constitution contains any grant of power authorizing Congress to make a road—notwithstanding the express grant of power, “*to declare war, to repel invasion, and suppress insurrection:*” powers that all reasonable men admit cannot be carried into effect without roads—and that the vital importance of protection against an invading foe cannot but suggest the propriety of the most effective description of roads.

I will here add, what I have some time past intimated in my published views, that such is the progress which all the strong powers of Europe are now making to apply steam power to ships of war, as well as to vehicles of land transportation, that the time is apparently close at hand when the proposed improvement in our means of national defence by the application of steam power to Rail Roads, will be indispensable to our existence as an independent nation, and will be found to surpass any other—nay, every other improvement or discovery in the art of war known to military history.

It is, in every possible view of the subject, so transcendant, and so obvious as to carry conviction to every military mind embracing its manifest bearings and tendencies, that all such as make themselves acquainted with it will not fail to admit, that it is destined very soon to produce an entire change in the most important operations that ever mark a state of war—which consist in the *attack and defence of nations—and more especially of fortified places*; and that it will produce a more memorable epoch in the practical science and common-sense business of war, *than has ever occurred within any ten centuries since the earliest dawn of the civilization of man*. Rail Roads leading from the central States to the national frontier of a country like ours, aided by large floating batteries, such as I had the honor to recommend to the war department in the year 1822, together wielded by steam-power, will be found to constitute the first, and the only discovery known to man, whereby such a country, *acting upon the magnanimous principle of self-defence, can, without doubt, hold in her own hands forever, (under favor of an overruling Providence,) the incontestible issue of war*. Any nation, of our numerical strength and military character and resources, availing herself of this discovery, may safely assume and maintain the attitude of proud defiance towards the armies and navies of Europe, and every other quarter of the Globe: Whilst the most warlike nations, neglecting the use of steam-power applied to the proposed means of defence, will be found wholly unable to maintain their independence!

In this view of the subject, in which I am happy to learn some of the most talented men whose opinions I have ascertained concur with me, the proposed system presses itself upon our attention, not indeed as a mere matter of choice, or of fancy, but as a work of indispensable necessity—as *a measure of self-preservation!*

In looking around us, we find upon our north-west, as well as upon our north-eastern border, *a boundary question*, in the final adjustment of which we may reasonably calculate on a war, in which two of the most powerful nations of the world may combine their land and naval strength and resources against us. These nations have no love for our democratic institutions. They are alike jealous of our prospective weight and expansive influence upon other quarters of the globe as well as our own. They know full well that our numerical strength will, in 61 years from this time, at the close of the present century, amount to not less than eighty millions of free white citizens. We know

that one of those great nations, while claiming our country as her refractory daughter, and once subsequently, was so far guilty of the unkindness of a step-mother towards us, as to employ our savage neighbors against us, and to pay them in gold and blankets at the rate of ten dollars for each Yankee scalp taken by those savages. It may be that some of our other neighbors may become equally *humane* and equally *magnanimous* towards us; in this case we may find mixed forces of no ordinary prowess approaching us even from beyond the Rocky Mountains We shall then be more able than at present to estimate the value of the proposed system of Rail Roads, which will enable us to oppose a million of the fighting men of the central and Western States to any invading foe, in one tenth part of the time, and at one tenth part of the expense that the movement would cost without Rail Roads. Such a war would hasten the accomplishment of the proposed work—and it would moreover hasten the approach of another period, which every enlightened man of the great valley of the Mississippi must confidently anticipate—that period which is destined to extend my system of Rail Roads, from Memphis, Tennessee, and from St. Louis to the Pacific ocean—a period at which the States of Missouri and Illinois will be as emphatically the great central military States of the Union of the then 46 States, as Kentucky and Tennessee are now the two great central military States of the present union of 26 States. But if we neglect the proposed means of national defence and national prosperity, all our border pioneers may share the fate of the neglected Floridians, and in place of a union of States embracing a population of eighty four millions, bound together by the proposed monuments of iron and of gold, we may, at the close of the present century, be found impoverished and divided by the intolerance of party spirit, into hundreds of miserable factions, an easy prey to some neighboring tyrant;—for the transition from anarchy to despotism may become as easy in America, as it ever has been in other quarters of the globe—requiring but a single step.

But I shall never despair of the Republic while I can find at the head of the State governments, men who, regardless of the spirit of party, dare to speak, as you and many others have spoken, in favor of Rail Roads.

Let the State authorities speak out upon this subject to the Federal Government, and my life upon it, their united efforts will eventuate in an act of Congress providing for the location and construction of the work. And when finished, let it be transfered to the States respectively in which its different sections are located, upon the single condition that the sections belonging to each State shall be supplied with collectors and toll-gates, kept in repair, and transport our troops and munitions of war, with the U. S. mail, forever, free of expense.

There are statesmen who put their trust altogether too much in Fortifications. It is obvious from the military history of Europe, that those nations who have taken care to construct, at a vast expense, the most approved fortifications, have frequently suffered the greatest losses in their wars with

nations of equal, or nearly equal numerical strength and prowess. The strongly fortified nation, or commander, confiding overmuch in the invulnerability of his works of defence, has too often committed the fault of relying for his security—not on the skill and disciplined prowess of his troops, with his perfected means of transporting them with unexampled celerity from his central positions to his assailed frontier—but mainly upon the supposed perfection of his fortifications, and the imagined inability of the invading foe to reduce them. He thus commits the greatest fault of remaining within his cordon of forts. His country soon becomes the theatre of war; which subjects him to the most afflictive evils of the war, which he might have obviated by commencing and continuing the defence of his country beyond his frontier. He is thus compelled to incur the expense of keeping in service from five to ten times as much force as that of his antagonist: because he, the assailant, is left to choose the *point of attack*, and the *time of attack*, (two immense advantages,) while the assailed, without Rail Roads to give celerity and cheapness to his movements, must hold himself *always ready* for action at every vulnerable point, and at all times. His splendid fortifications must all be expensively armed, amply supplied with rations and powder, and lead, and arms; and strongly garrisoned by first rate troops. He is constantly apprehensive, lest his enemy should attack him in some vulnerable point not yet sufficiently fortified; and his apprehensions are as constantly realized, for no nation can meet the expense of fortifying every accessible point of his frontier. The war progresses. His weak points are sure to be seen and overcome. His prosperous agricultural and manufacturing districts are laid waste. He is finally compelled to patch up a peace.—He finds himself compelled, as France was compelled in 1815, to suffer the humiliation of feeding and lodging and yielding to the ravages of a lawless foe; and then paying the expenses of the war—after suffering the deep mortification of seeing the invader pass by the numerous splendid fortifications upon his frontier, without having deigned to honor scarcely any one of them with a siege—or a shell, or a shot.

The proposed system of Rail Roads, on the contrary, will contribute so much altogether to favor the assailed, and to oppose to the assailant the insurmountable obstacles of having hurled against him, with a momentum and a precision not to be evaded or resisted, all the vital power of the heart of the republic, to protect the extremities, that this means of defence cannot but be ten times more effective than any other hitherto discovered:—more especially to ensure the protection of the country whose policy or disposition may induce her to confine herself to *defensive war*.

The only sure means of preventing war, is to be prepared for it: not indeed with fortifications, always vastly expensive in peace and in war—and useless in peace; but with Rail Roads leading from the central States to the frontier:—These, in war, will do incalculably more for the national defence than fortifications, whilst the Rail Roads will, both in peace and in war, and more especially in peace, whilst fortifications and arsenals, and ships of war, are useless, and a great expense to the nation

to keep them in repair;—then Rail Roads, turned to commercial purposes, will produce a revenue sufficient to pay the expense of their construction in from six to eight years; and they will be a perpetual source of wealth and an endless blessing to the agriculturists, and mechanics, and all who are in any manner employed in cultivating, or otherwise subduing the earth, and developing its countless resources, whether agricultural or mineral, most of whose productions require the application of steam power to prepare, and Rail Roads to convey with cheapness and rapidity the raw material, or the manufactured commodity of either, often of unwieldy bulk and great weight, to profitable markets, at low rates of transportation.

Some of my friends having questioned the propriety of my having designated the States of Tennessee and Kentucky as the "*great military States of the Union*," I avail myself of the present occasion to explain why I have thus designated these States.

It will be seen by referring to my Diagram, or to the map of the United States, that of the 26 States each one of the other 24 extends to, or forms a section of the sea-board, the northern or the western frontier, and consequently, the military men of all these border States constitute the *local force* of the nation, liable to be called into service only for the protection of their own firesides—or, in other words, for the defence of their own or adjacent sections of the frontier respectively: whereas, the military men of Kentucky and Tennessee constitute the principal *disposable force* of the nation—liable to be called into service at any, and at every point of the sea-board, or other sections of the national frontier, wherever an enemy shall dare to attempt invasion. They will thus be found to act with that part of the regular army which shall be considered as *disposable*, for field service; excluding such corps of artillery or infantry as may happen to constitute the *garrisons* of our permanent posts. These have usually co-operated with the *local force* of our border States. With these, the disposable forces of the central States will usually co-operate, whenever and as often as an enemy shall attack any section of the national frontier. Hence it is that the military men of the States of Kentucky and Tennessee constitute the principal *disposable force* of the nation; and hence it is, that these two States are designated by me as "*the great military States of the Union*." The military men of the southern districts of Ohio, and those of the eastern districts of Indiana and Illinois and Missouri, may, in the course of a few years, be considered as *disposable force*. I have never permitted myself to say, nor do I believe those western or central men possess more gallantry or chivalry than the fighting men of the frontier States: but I do affirm, without the fear of contradiction by any man of military mind, that, inasmuch as the central States have no frontier of their own to defend, their military men will ever enjoy the glorious privilege of being called to any and every part of the national frontier, to co-operate with the local forces in repelling the invading foe. And hence the propriety of extending to them the proposed Rail Roads, so that they may *fly* to the frontier, to be usefully employed in giving to the enemy the *finishing blow*.

A retrospective glance of the mind's eye to Bladensburg on the 24th of August, 1814, at the moment when the local forces of the Federal City with our worthy President at their head, were in the act of turning their backs upon the invading foe, will prepare the mind to realize, at such a crisis, the value of a Rail Road, that might have brought before the enemy, ready for action, the light brigade of Coffee, or the division of Carroll, of Tennesseans, or the division of Thomas or Adair, of Kentuckians. The enemy would thus have been instantly punished for his audacity; and the Capitol, and what was of still more consequence to us, the honor of our beloved country, would have been preserved inviolate!

In the hope that you will concur with me in the foregoing views, I respectfully request that you will do me the favour to submit them with my Diagram, to the Legislature of the state over which you preside.

I have the honor to be with perfect respect Your obd t . S t .

Edmund P. Gaines

To the Governor of the State of Mississippi.

City of Jackson

inclosing diagram of a system of Roads—

Octr. 14th 1838. And Novr 27 th. 1838

Major General Gaines U. S. Army

To the Governor of the State of Mississippi City of Jackson

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